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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/872,596 | 06/01/2001 | Dennis P.J. Ting | 3179.1001-001 | 2621 |
| 21005 | 7590 | 04/05/2006 | EXAMINER | |
| HAMILTON, BROOK, SMITH & REYNOLDS, P.C. | | | WONG, BLANCHE | |
| 530 VIRGINIA ROAD | | | | |
| P.O. BOX 9133 | | | ART UNIT | PAPER NUMBER |
| CONCORD, MA 01742-9133 | | | 2616 | |

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,596

Applicant(s)

TING ET AL.

Examiner

Blanche Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed January 13, 2006, have been fully considered but they are not persuasive.

With regard to claim 4, Applicant contends that "the claimed step of 'examining the contents of the owner field' in the virtual device structure, is examining the same virtual device structure that is allocated to the communication port that receives the data packet" [with emphasis]. However, the amended claim 4 introduced other confusion. Although "the virtual device structure" in the amended claim 4, as oppose to "the device structure" of the original claim 4, is allocated to the communications port, it is confusing whether it is the same virtual device structure of "a virtual device structure allocated for the virtual network device" of claim 3, line 19-20 [with emphasis].

Drawings

2. The drawings are objected to because pertinent structural elements of the invention, such as failsafe network device 146, should be labeled.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, in claims 1,3,8, assigning ownership of the plurality of communications ports to a virtual network device (Fig. 3, 302 is set owner in physical port device structure to address of device structure for virtual device), setting a trunk network address to a first network address, the first network address assigned to a first communications port (Fig. 3, 306 is assign MAC address of 1st physical port to virtual device), setting network addresses for the plurality

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of communication s ports to the trunk network address, and setting a virtual network address assigned to the virtual network device to the trunk network address; in claims 2 and 3, allocating a plurality of device structures ... for each of the plurality of communications ports (Fig. 3, 300 is allocate device structure for virtual device); in claim 11, assigning ownership of a second plurality of communications ports coupled to a second switch to a second virtual network device, assigning ownership of the virtual network device and the second virtual network device to a third virtual network device, setting a failsafe network device address to the trunk network address, setting network addresses assigned to the plurality of communications ports to the failsafe network device address, and setting a virtual network address assigned to the first and second virtual network devices to the failsafe network device address; in claims 12 and 14, a trunk configuration routine, similarly in claims 24 and 26; in claim 16, a virtual device driver; must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-36** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 5, line 2, it is unclear what is or which is the data packet.

According to claim 1, line 13, there is a data packet *for* the trunk network address [with

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emphasis]. It is also unclear how in claim 1, receiving a data packet by any of the communications ports in the trunk and forwarding the data packet to the virtual network device, but in claim 5, receiving a data packet by virtual network device and transmitting the data packet through one of the plurality of communications ports. In consistent with claim 1, is the Applicant trying to say in claim 5, receiving a data packet for the virtual network address by the virtual network device and transmitting/forwarding the data packet through one of the plurality of communications ports in the trunk?

With regard to claim 8, line 4, -- the plurality of ports to a switch -- should be replaced with "the plurality of communication ports to a switch" in consistent with line 3.

With regard to claim 8, line 7, -- a first network address assigned to a first communications port -- should be replaced with "a first network address, the first network address assigned to a first communications port" for clarity as in claim 1 and 3.

With regard to claim 11, line 4, it is unclear which -- the virtual network device --.

With regard to claim 11, lines 9-10, it is unclear whether -- a virtual network address assigned to the first and second virtual network devices -- is the same as -- a virtual network address assigned to a virtual network device -- in claim 8, line 11.

With regard to claim 11, line 12, -- communications ports -- should be replaced with "communications ports in the trunk" for clarity.

With regard to claim 12, it is unclear whether -- a first network address -- in line 4 is one of -- network addresses -- in line 5. Similar problem found in claims 14, 24 and 26.

With regard to claim 23, it is unclear whether the claim is for a computer program product in line 1 or program code in line 4.

6. There is insufficient antecedent basis for this limitation in the claim.

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Claim 1, line 11, recites the limitation "the virtual network device". Similar problem found in claims 3 and 8.

Claim 6, line 2, recites the limitation "the one of the plurality of communications ports".

Allowable Subject Matter

7. Claims 2,4,7,9,10,13,15-22,25,27-36 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

BW
March 28, 2006


HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600